AMENDMENTS TO THE CLAIMS:

This listing of claims will replace all prior versions, and listings, of claims in the application:

LISTING OF CLAIMS:

Claims 1-29   (cancelled)

30.   (new)   A method for processing the data of an input data flow containing elements by using a knowledge base including segments, the method including steps of:
-      reading a processable part of the input data flow and dividing it into elements,
-      grouping the processable part of the input data flow into segments of which each segment contains one or several elements,
-      analyzing the elements of the processable part of the input data flow and on the basis of the analysis result, producing a segment specific classification,
-      comparing the classification of segments of the input data flow is compared with the classifications of segments of the knowledge base, and a knowledge base segment is associated with the input data flow segment having the corresponding classification, and
-      reporting the result that consists of a number of knowledge base segments associated with the processable part of the input data flow.

31.   (new)   A method according to claim 30, wherein at least one segment contains at least two elements, and that the segment specific classification is defined on the basis of the analysis result of at least two of said elements.

32. (new) A method according to claim 30, wherein the element analysis results are catenated in order to establish a segment-specific classification.

33. (new) A method according to claim 30, wherein the classification of the input data flow segment serves as a search key when searching for a knowledge base segment with the same classification.

34. (new) A method according to claim 30 so, that after grouping into segments, there is performed a step where the processable part of the input data flow is compared segment by segment with the knowledge base segments, and the mutually equivalent segments are associated with each other, whereafter the analysis step is performed only for those segments for which an equivalent knowledge base segment was not found.

35. (new) A method according to claim 34, wherein if one input data flow segment obtains, when comparing with the knowledge base segments, several equivalent segments, one of these is chosen by applying at least one of the following criteria:
there is chosen a segment with most input data flow elements,
there is chosen a segment that the user indicates,
there is chosen a segment that has been used most frequently,
there is chosen a segment with a semantic classification that corresponds to the classification of the respective part of the input data flow,
there is chosen a segment, the semantic classification of the elements of which corresponds to the classification of the respective part of the input data flow.

36. (new) A method according to claim 30, wherein in the knowledge base, there are included segments with different

lengths and partly similar contents, by means of which the processable part of the input data flow is grouped into segments, optimally case by case.

37. (new) A method according to claim 30, wherein the grouping of the input data flow into segments is carried out by at least one of the following methods:
- a chosen segment is a segment already contained in the knowledge base that is an equivalent for the input data flow part by its elements or its classification,
- a segment is defined according to the instructions of the user,
- a language unit is made into a segment,
- a phrase is made into a segment,
- a segment is cut at a punctuation mark,
- a segment is cut at given, listed intermediate words,
- a segment is formed of a remaining part of the input data flow, when the segments found by other means are removed from the input data flow part.

38. (new) A method according to claim 30, wherein the segments form hierarchical structures where a given higher-level segment contains information of given lower-level segments, and that the method comprises a step of associating with the processable part of the input data flow higher-level segments of the knowledge base, said segments containing lower-level segments of the knowledge base, associated with the input data flow segments.

39. (new) A method according to claim 30, wherein the input data flow segment is subjected to a special treatment according to given instructions in a case where a corresponding segment classification is not found in the knowledge base.

40. (new) A method according to claim 30, wherein the analysis to be performed for the elements is a morphological analysis, and that as the result of said analysis, there are generated certain features describing said elements.

41. (new) A method according to claim 30, wherein in order to translate data into a target language, for the target segments there are looked up equivalent segments from the knowledge base of two or more languages, and as the result flow, there is generated a number of equivalent segments containing equivalent elements.

42. (new) A method according to claim 41, wherein for those input data flow elements for which equivalents are not found in the knowledge base, there are generated equivalent elements according to given analysis results connected to the knowledge base elements and/or by means of a separate element-generating generator.

43. (new) A method according to claim 41, wherein the output data flow produced when translating data contains elements of equivalent segments and separately generated elements as a segment string, so that the internal order of the equivalent elements inside each segment is defined on the basis of the order information contained in the equivalent segments.

44. (new) A method according to claim 41, wherein the output data flow to be produced when translating data contains elements of equivalent segments and separately generated elements as a segment string, so that the internal order of the equivalent elements inside each segment is defined by an equivalence information between the segments and their equivalent segments.

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45. (new) A method according to claim 30, comprising, in order to form a knowledge base, steps of:

- reading two mutually corresponding input data flow parts and dividing those into elements,

- classifying those parts of the input data flows that should be processed at a time,

- for the processable part of the input data flow, looking up segment division, equivalent segments and equivalence information between these on the basis of the segments contained in the knowledge base and on the basis of their classification, and

- matching the unsegmented parts of the processable input data flows that are left without equivalent segments with each other and forming into segments, and for said segments, generating equivalent segments and their mutual equivalence information.

46. (new) A method according to claim 45, wherein the equivalence information, equivalent segments and segment division of the segments are generated on the basis of previously in the knowledge base stored segments and/or their classification.

47. (new) An arrangement for processing data of an input data flow containing elements, the arrangement including

- memory units for storing the segment-containing knowledge base, look-up indexes, information and an processable part of the input data flow,

- means for reading the input data flow,

- means for dividing the input data flow into elements,

- means for grouping the input data flow into segments containing elements,

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\-   means for analyzing the input data flow elements and for producing a segment specific classification on the basis of the analysis results,

\-   means for comparing the input data flow segment classification with the knowledge base segment classifications and for associating equivalent segments with each other, and

\-   means for reporting the segment classification.

48. (new) An arrangement according to claim 47, including also means for comparing the input data flow segments with the knowledge base segments.

49. (new) An arrangement according to claim 47, including also means for generating equivalent segments containing equivalent elements as a string that forms an output data flow.

50. (new) An arrangement according to claim 47, wherein the arrangement has a connection to an element-generating generator in order to generate elements on the basis of the analysis results.

51. (new) An arrangement according to claim 47, wherein the memory units contain segmenting information for dividing the input data flow part into segments, and order information for defining the respective order of the elements in the input data flow segments.

52. (new) An arrangement according to claim 47, wherein the memory unit contains a knowledge base for storing segments, elements, classifications, equivalent segments and equivalent elements.

53. (new) An arrangement according to claim 47, including I/O interfaces for transmitting and receiving input and output data flows and for establishing connections with other systems and/or users.

54. (new) An arrangement according to claim 47, including means for comparing the whole processable part of the input data flow with knowledge base segments, with any segment size whatsoever.

55. (new) An arrangement according to claim 47, including means for reading and processing mathematical expressions.

56. (new) An arrangement according to claim 47, including means for reading and processing formal languages.

57. (new) An arrangement according to claim 47, including
- means for reading natural languages,
- means for dividing natural languages into elements, said elements being words with their affixes,
- means for grouping a natural language into segments, said segments being units containing words,
- means for classifying a natural-language processable section on the basis of lexical, morphological, syntactic or semantic analysis, and
- means for generating equivalent segments containing equivalent words.

58. (new) An arrangement according to claim 57, having a telecommunications contact with a corresponding arrangement in order to perform a subfunction.